

Prof. Sophia E. Hayes is a Professor of Chemistry at Washington University in St. Louis, Missouri. Her research is centered on nuclear magnetic resonance, especially at very low temperatures, spanning topics in chemistry, materials science and condensed matter physics. Her research is wide-ranging, addressing new materials for carbon capture, metal oxide thin films, and quantum-mechanical phenomena in semiconductors. Washington University has long been a leader in the field of magnetic resonance, in multiple departments and disciplines, spanning physical sciences and medicine. Hayes is a co-author of the 2016 report “Responding to the U.S. Research Community’s Liquid Helium Crisis” issued jointly by the American Physical Society, Materials Research Society, American Chemical Society (<https://www.aps.org/policy/reports/popa-reports/upload/HeliumReport.pdf>). She has taken an active role to raise awareness of helium supply issues internationally.

Prof. Hayes holds B.S. and Ph.D. degrees in chemistry from Univ. of California Berkeley, Univ. of California Santa Barbara, respectively. She was a Directorate Postdoctoral Fellow at Lawrence Livermore National Laboratory in the Division of Chemistry & Materials Science (jointly with U.C. Berkeley, Chemical Engineering), and she was an Alexander von Humboldt Fellow in Physics at Technical University of Dortmund, Germany.